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Delivery Order No. 0003

The Former Screening Plant and Nearby Areas Operable Unit 2 Institutional Control Implementation and Assurance Plan

U.S. Environmental Protection Agency

Libby Asbestos Superfund Site
Libby, Montana

November 2013

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Operable Unit 2
Institutional Control Implementation and Assurance Plan

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November 2013

Prepared by:

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Region 8

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Libby Asbestos Superfund Site
The Former Screening Plant and Nearby Areas
Operable Unit 2
Lincoln County, Montana

Institutional Control Implementation and Assurance Plan

USACE Contract No. W912DQ-08-D-0018
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Acronyms and Abbreviations

ABS	activity-based sampling
BNSF	Burlington Northern Santa Fe
COC	contaminant of concern
DEQ	Montana Department of Environmental Quality
ERS	environmental resource specialist
EPA	U.S. Environmental Protection Agency
ft^2	square feet
Grace	W.R. Grace
IC	institutional control
ICIAP	Institutional Control Implementation and Assurance Plan
KDC	Kootenai Development Corporation
LA	Libby amphibole asbestos
MDT	Montana Department of Transportation
MCA	Montana Code Annotated
O&M	Operations and Maintenance
OU	operable unit
ROD	Record of Decision
ROW	right-of-way
Site	Libby Asbestos Superfund Site
U-Dig	Montana utility locate service

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Section 1
Introduction

This Institutional Control Implementation and Assurance Plan (ICIAP) was prepared by the U.S. Environmental Protection Agency (EPA) for the EPA Region 8 Libby Asbestos Superfund Site (Site) (Figure 1-1) in Libby, Montana. The Site has been divided into eight separate operable units (OUs) (Table 1-1). This ICIAP addresses OU2, the former Screening Plant and nearby areas. Investigation and cleanup of OU2 were performed by the EPA, in consultation with the Montana Department of Environmental Quality (DEQ), under the Superfund law.

This ICIAP identifies and documents activities that are designed to implement, maintain, and enforce institutional controls (ICs) at OU2, and the organizations responsible for conducting these activities. This ICIAP will help ensure that OU2 ICs are properly implemented to protect the remedies in place, and continue to operate as intended.

Oversight of ICs will be included during operation and maintenance (O&M) phases on the site and are included in the *Operations and Maintenance Plan, The Former Screening Plant and Surrounding Properties*, Operable Unit 2(EPA 2013b).

Table 1-1 Libby Asbestos Site OUs

OU#	Name
1	Former Export Plant
2	Former Screening Plant and nearby areas
3	Former Vermiculite Mine
4	Libby, Montana (residential, commercial, industrial, and public properties)
5	Former Stimson Lumber Mill
6	Burlington Northern and Santa Fe Railroad (BNSF)
7	Troy, Montana (residential, commercial, and public properties)
8	U.S. and Montana State highways and secondary highways that lie within the boundaries of the Site.

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Section 2
Site Details

2.1 Site Description

The Site (CERCLIS #MT0009083840) is located in and around the Cities of Libby and Troy, Montana. Libby is the county seat of Lincoln County and is in the northwest corner of Montana, about 35 miles east of Idaho and 65 miles south of Canada.

Numerous hard rock mines have operated in the Libby area since the 1880s, but the dominant impact to human health and the environment in the City of Libby has been from vermiculite mining and processing. The vermiculite deposit that was mined by W.R. Grace (Grace) contains a distinct form of naturally occurring amphibole asbestos, Libby amphibole asbestos (LA), which is considered the contaminant of concern (COC) at the Libby Asbestos Superfund Site. EPA initiated an emergency response action in November 1999 to address questions and concerns raised by citizens of the City of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing, and exportation of asbestos-containing vermiculite. To facilitate a multi-phase approach to remediation of the Libby Asbestos Superfund Site, eight separate OUs were established. These OUs are shown on Figure 2-1 and are described below:

OU1. The Former Export Plant is situated just north of the downtown area of the City of Libby, Montana. The property is bounded by the Kootenai River on the north, Highway 37 on the east, the Burlington Northern Santa Fe (BNSF) railroad thoroughfare on the south, and State of Montana property on the west. OU1 includes the former Export Plant, Riverfront Park, and the embankments of City Service Road and Highway 37. The Highway 37 right-of-way adjacent to the OU1 site was included due to the proximity to the OU1 site and the known contamination in the right-of-way (ROW).

OU2. Libby Asbestos Superfund Site OU2 is the subject of this ICIAP. OU2 includes areas impacted by contamination released from the Former Screening Plant. The Highway 37 right-of-way adjacent to the OU2 site was included due to the proximity to the OU2 site and the known contamination in the ROW. For the purposes of the ICIAP, the contaminated portion of the Highway 37 right-of-way is considered part of Subareas 1, 2 and 3 within OU2.

OU3. The mine OU includes the former vermiculite mine and the geographic area (including ponds) surrounding the former vermiculite mine that has been impacted by releases from the mine, including Rainy Creek and the Kootenai River. Rainy Creek Road is also included in OU3. The geographic area of OU3 is based primarily upon the extent of contamination associated with releases from the former vermiculite mine.

OU4. OU4 is defined as residential, commercial, industrial (not associated with former Grace operations), and public properties, including schools and parks in and around the City of Libby, or those that have received material from the mine not associated with Grace operations. OU4 includes only those properties not included in other OUs.

OU5. OU5 includes all properties that were part of the former Stimson Lumber Mill and that are now owned and managed by the Lincoln County Port Authority.

OU6. The rail yard owned and operated by BNSF is defined geographically by the BNSF property boundaries and extent of contamination associated with BNSF rail operations. Generally, the boundary is as wide as the railroad right-of-way. Railroad transportation corridors are also included in this OU and no boundaries have been set at this time on the east-west length of the OU.

OU7. The Troy OU includes all residential, commercial, and public properties in and around the Town of Troy, approximately 20 miles west of downtown Libby.

OU8. OU8 is comprised of the U.S. and Montana State highways and secondary highways that lie within the boundaries of the Site.

Section 3

Operable Unit 2 – Former Screening Plant and Nearby Areas

3.1 OU2 Characteristics

OU2 covers approximately 43 acres on the north side of the Kootenai River, approximately 5 miles north of the City of Libby downtown area (Figure 2-1). OU2 includes areas impacted by contamination released from the former Screening Plant and is comprised of four subareas. These subareas include the former Screening Plant (Subarea 1), the Flyway property (Subarea 2), a privately-owned property (Subarea 3), and the Rainy Creek Road Frontage and Highway 37 ROW adjacent to Rainy Creek Road (Subarea 4).

The four subareas within the OU are carried through all discussions of the remedial alternatives and are shown on Figure 3-1:

- **Former Screening Plant (Subarea 1) –** The Former Screening Plant is located approximately 5 miles northeast of Libby on the east side of the Kootenai River (Figure 3-1). The area is approximately 21 acres in size, and is bordered by Highway 37 to the northeast, privately owned property to the southeast, Flyway property to the south, and the Kootenai River to the west. The property is currently privately owned and is being used for residential purposes.

- **Flyway (Subarea 2) –** Currently owned by Kootenai Development Corporation (KDC) (a subsidiary of Grace), the Subarea commonly referred to as the Flyway is comprised of approximately 19 acres northeast of Libby, immediately south of the Former Screening Plant and the privately-owned parcel (Figure 3-1). The Flyway is bounded by Highway 37 to the northeast, a residential subdivision (*River Runs through It*) to the south, the Kootenai River to the southwest, and the Former Screening Plant and private property to the north. The Flyway is accessed through a gated entrance to the adjacent private property off Highway 37. For the purpose of this report, the Flyway Subarea includes the Highway 37 ROW, which is adjacent to the west side of Highway 37. The ROW is used and maintained by the Montana Department of Transportation (MDT). The Flyway is currently vacant, undeveloped land.

- **Private Property (Subarea 3) –** The private property of Subarea 3 consists of an approximate 1-acre parcel situated between the former Screening Plant and the Flyway, and bordered by Highway 37 to the northeast (Figure 3-1). For the purpose of this plan, this private property includes the Highway 37 ROW adjacent to the west side of Highway 37. A continuation of the Flyway ROW, this ROW is used and maintained by the MDT. The private property is currently vacant, undeveloped land.

- **Rainy Creek Road Frontages (Subarea 4) –** The Rainy Creek Road Frontages consist of approximately 2 privately owned acres that lie immediately north and south of Rainy Creek Road on the east (i.e., mine) side of Highway 37 (Figure 3-1). Approximately 45,000 square feet (ft^2) of land comprises the north frontage; approximately 39,000 ft^2 comprises the south. The Rainy Creek Road Frontages are currently vacant, undeveloped land.

3.2 OU2 History

3.2.1 Previous Uses

The following sections describe the previous and current uses of Subareas 1-4 of OU2.

3.2.1.1 Former Screening Plant (Subarea 1)

From 1975 to 1990, the Screening Plant was used by Grace to screen mined vermiculite by size and grade. The vermiculite was transported from the mine to the site by truck, sorted, and bulk stored in two sheds at the facility. The vermiculite was then loaded onto a conveyor system and transported across the Kootenai River to a conveyor unloading station. Once the vermiculite was transported across the river, it was either trucked to the local Export Plant (OU1) for processing and shipping or loaded onto rail cars for transportation and distribution to expansion plants outside of Libby.

From 1993 to 1999, the former Screening Plant was used as a fully-operational retail nursery (Raintree Nursery) business where plants, flowers, and trees were grown, stored, and sold. Related plant-care items were also stored and sold at the nursery. The owners of the property lived on the site in a one-story structure that served both as an office and a residence. The largest structure on the property was referred to as the long shed. Approximately one-third of the long shed was used to store nursery supplies, tools, and equipment for the nursery business; the remaining two-thirds were leased to outside parties for storing recreational vehicles, trailers, boats, automobiles, and other items. Five greenhouses were used for growing plants, flowers, and shrubs, and a number of smaller buildings and support structures were used in the nursery operation. Two reinforced concrete tunnels were used to grow mushrooms that were shipped to the Far East for use as medical treatments. A number of steel tanks, hoppers, silos, and other remnants of the former mining operations at the former Screening Plant were stored at the site.

Due to the LA contamination associated with vermiculite from the Libby mine, the former Screening Plant has undergone extensive investigation and removal actions since EPA began emergency response activities in Libby in 1999, details of which can be found in the Record of Decision (ROD) (EPA 2010).

3.2.1.2 Flyway (Subarea 2)

The Flyway housed a pump that was used during vermiculite mining operations to convey water from the Kootenai River to the mine site. The pump house, located close to the Kootenai River, has since been abandoned and the pump is no longer functional. The interior insulation of this metal structure was removed and all parts of the building were washed. The empty structure was left on-site for possible future use.

In 1999, when the EPA first visited the property, the Flyway was found to contain several vermiculite piles. One portion of the property had been covered with imported fill and it was suspected that vermiculite-containing material had been moved from the former Screening Plant and used as fill to level parts of the Flyway where drainages existed. Following investigation work performed by the EPA as part of the Libby emergency response, a portion of the Flyway was remediated in 2001 by Grace at the direction of the EPA. In 2003, remediation at the site was performed by the EPA, in 2004 additional remediation was performed by Grace at the direction of the EPA, and in 2005, the Highway 37 ROW was remediated by the EPA. Details of investigation and remediation activities conducted at the Flyway are explained in the ROD (EPA 2010).

3.2.1.3 Private Property (Subarea 3)

Under Grace's ownership, the property was likely used for vermiculite mining-related activities, such as the storage or staging of equipment and materials. In recent history, portions of the property were used for equipment decontamination during remediation work at the former Screening Plant and the Flyway (the property was vacant and not in use at the time of cleanup activities). The property underwent EPA investigation and remediation. Details of investigation and remediation activities conducted are explained in the ROD (EPA 2010).

3.2.1.4 Rainy Creek Road Frontages (Subarea 4)

For a short period, numerous trees were stored at the south frontage for use during restoration at the former Screening Plant. The Rainy Creek Road Frontages were remediated by the EPA in 2005. The Rainy Creek Road Frontages are currently vacant, undeveloped land.

3.2.2 Response Action Summary

Multiple investigation, pre-removal, and removal events have occurred at OU2 to date. All of these activities were conducted by the EPA or by Grace under the EPA's oversight. These activities are detailed in the *Final Remedial Investigation Report, Operable Unit 2 – Former Screening Plant and Surrounding Properties* (EPA 2009); *Final Remedial Action Report, Operable Unit 2 – Former Screening Plant and Surrounding Properties* (CDM Smith 2012a); and summarized in Tables 3-1 and 3-2.

3.2.2.1 Other OU2 Activities

In addition to the activities described in Table 3-1, post-construction activity-based sampling (ABS) activities were performed in areas of OU2 in September and October 2012. In general, data was collected to support a post-construction risk assessment to confirm the effectiveness of the remedy. Specifics regarding the post-construction ABS activities are detailed in the *Sampling and Analysis Plan/Quality Assurance Project Plan: 2012 Post-Construction Activity-Based Sampling, Libby Asbestos Site, Operable Unit 2* (CDM Smith 2012b) and the *Draft Post-Remediation Human Health Risk Assessment, Operable Unit 2, Libby Asbestos Superfund Site* (EPA 2013a).

Table 3-1. Summary of Investigation Activities at OU2

Date	Event	Summary
Subarea 1 – Former Screening Plant		
1999, December	Soil sampling	Baseline evaluation of LA soil contamination on site.
2000, March	Soil and dust sampling	Soil sampling to supplement the 1999 investigation and better characterize site soil. Dust samples collected in partially-open long shed used to store various items on the property.
2000, July	Soil and personal air sampling	Soil sampling to characterize areas not previously investigated in December 1999. Personal air sampling conducted during a sweeping activity in and around the long shed to determine concentrations of LA as a result of the activity.
2000, August	Soil sampling and test pits	Soil sampling and test pit excavation program conducted to determine the vertical extent of contaminated soil.
2001, March/April/May	Soil sampling	Soil sampling to characterize areas not previously investigated in 1999 or 2000.
2003, March	Soil sampling	Soil sampling of root balls of trees removed from the site to determine levels of LA in root balls.

Table 3-1. Summary of Investigation Activities at OU2 (Continued)

Year	Event	Summary
Subarea 2 – Flyway		
2000, March	Soil sampling	Soil sampling to support site characterization.
2000, September	Soil sampling and test pits	Soil sampling and test pit excavation as part of the National Register for Eligible Prehistoric Indian Archeological Site.
2001, March	Soil sampling and test pits	Soil sampling and test pit excavation program conducted to determine the vertical extent of contaminated soil.
2001, May/June	Soil sampling	Soil sampling to provide information on areas not previously investigated.
2003, July	Soil sampling	Soil sampling to provide information on areas not previously investigated.
2005, June	Soil sampling	Soil sampling to determine if quantity of soil to be removed could be reduced to protect roadway along right-of-way.
2010, July	Soil sampling	Soil sampling and visual inspections as part of the Flyway investigation, done in accordance with the *General Property Investigation Sampling and Analysis Plan* CDM Smith 2010).
Subarea 3 – Private Property		
2000, April	Soil sampling	Soil sampling of suspect vermiculite piles and native-looking soil.
Subarea 4 – Rainy Creek Road Frontages		
2003, May	Soil sampling	Soil sampling conducted to support remedial investigation.
2003, November	Soil sampling	Soil sampling to determine if decontamination run-off water was re-contaminating the frontages.

Table 3-2 Summary of Response Actions at OU2

Year	Material Removed	Summary of Response Action
Subarea 1 – Former Screening Plant		
2000, August through October	Contaminated soil and building debris	Removal of contaminated soil and demolition of buildings.
2001, August through November	Contaminated soil and building debris	Removal of contaminated soil and demolition of long shed.
2002, August through October	Contaminated soil and debris	Contaminated soil removal along lower reach of Rainy Creek and decontamination pad.
2002	None - Placement of agricultural fill (Restoration)	Agricultural fill placed and compacted above the existing common fill and structural fill placed in 2000 and 2001. Topsoil placed above the agricultural fill as coordinated with the property owners. Restoration work plan implemented, as negotiated between the EPA and property owners.
2003, March through April	None - Potable water well installation	Attempts to drill a new potable water well. Preliminary wells were never utilized due to LA contamination and elevated fluoride concentrations.
2003, September through 2004, August	Contaminated soil	Removal of contaminated soil along the west ROW of Highway 37, 350 feet south to 270 feet north of the former Screening Plant entrance.
2005, July and 2006, May	None - Potable water well installation	New well was completed in the alluvial aquifer.

Table 3-2 Summary of Response Actions at OU2 (Continued)

Year	Material Removed	Summary of Response Action
Subarea 2 – Flyway		
2001, September	Contaminated soil	Grace's contractor conducted contaminated soil removal under EPA oversight.
2004, July through November	Contaminated soil	Contaminated soil excavated from the northern portion of the Flyway and the Kootenai riverbank along the southern portion of the Flyway.
2005, June	Contaminated soil	Contaminated soils in the ROW excavated and a stockpile of contaminated soil removed.
2010, September	Contaminated soil	Removal of contaminated soil along the Highway 37 ROW.
Subarea 3 – Private property		
2005, June	Contaminated soil	Removal of contaminated soil to a depth of 12 inches below ground surface throughout.
Subarea 4 – Rainy Creek Road Frontages		
2004, August through October	Contaminated soil	Removal of contaminated soil to a depth of 2 feet below ground surface throughout.
2006, August	Contaminated soil	While excavating to repair a damaged water line at the north frontage, a contractor observed vermiculite. The contaminated soil was excavated, and the damaged water line was repaired.

3.2.3 Institutional Control Requirements from the Record of Decision

The following is a summary of response action IC requirements and details from the OU2 ROD:

For OU2, ICs will be used to ensure that any future encounters with residual contamination are managed appropriately. ICs for OU2 include governmental and proprietary land use restrictions and informational devices.

A Montana utility locate service (U-Dig), has been implemented as a way to notify anyone disturbing the ground that asbestos contamination may be found below the ground surface. U-Dig is a local service that excavators contact at no cost prior to performing work at a property to locate underground hazards (e.g., electrical lines). Excavator is defined as a person conducting the excavation activities [Montana Code Annotated (MCA) 2011, 69-4-501]. Excavation is defined as any operation in which earth, rock, or other material in the ground is removed, or otherwise displaced by means or use of any tools, equipment, or explosives (MCA 2011, 69-4-501). Advice on how to address the contamination, if disturbance is required, can be obtained from the environmental resource specialist (ERS). Property owners, tenants, and those performing work on a property are provided with a means to evaluate potential exposure to LA or LA source materials, such as Libby vermiculite, during routine and non-routine activities at properties located within the Site through an EPA funded program. This program will be in place at the Site to ensure the burden of remediation costs for removing LA materials do not fall onto property owners. As part of this program, an ERS position is currently staffed in Libby by the EPA. As remediation of the Site is completed, this position may be transitioned to another government entity in the future. In addition to providing advice and instruction, the ERS will assist in managing any contamination encountered.

Additional informational devices include the EPA Information Center, handouts, and contractor training classes. For information handouts and contractor training classes individuals may contact the EPA Information Center at the following:

Libby - EPA Information Center
108 E 9th St
Libby, MT 59923
(406) 293-6194

3.3 Contaminant of Concern

The main COC and agent for potential exposure to the public at OU2 have been termed interchangeably by the EPA as Libby amphibole asbestos or LA. Currently, the EPA has established a draft inhalation unit risk value and draft reference concentration for exposure to LA at the Site.

OU2 was historically owned and used by Grace for stockpiling, staging, and distributing vermiculite and vermiculite concentrate to vermiculite processing areas and insulation distributors outside of Libby. The vermiculite deposit that was mined by Grace contains a distinct form of naturally-occurring amphibole asbestos that is comprised of a range of mineral types and morphologies. The term LA is used in this document to identify the mixture of amphibole mineral fibers of varying elemental composition (e.g., winchite, richterite, tremolite, etc.) that have been identified in the Rainy Creek complex near Libby, MT (Meeker et al. 2003). LA has the ability to form durable, long, and thin structures that are generally respirable, can reasonably be expected to cause disease, and hence are considered the contaminant of concern at the site.

Because vermiculite mined from Libby has been found to be contaminated with LA, which is known to cause human health effects, the EPA initiated an emergency response action in November 1999 to address questions and concerns raised by citizens of Libby regarding possible ongoing exposures to asbestos fibers as a result of historical mining, processing, and exportation of vermiculite.

3.3.1 Physical Boundaries of Impacted Resources

OU2 is divided into four subareas (Subarea 1, Subarea 2, Subarea 3, and Subarea 4), each of which is described in Sections 3.1 and 3.2 and shown in Figure 3-1. Numerous investigations were conducted within OU2 and are summarized in Section 3.2.2. Based on those investigations, contamination is known to be present in the following media:

- Soil

Exposure to the contamination has been mitigated by various removal actions (see Section 3.2.2) conducted in Subareas 1, 2, 3, and 4 primarily to remove accessible source materials.

Location and depth of residual contamination at OU2, based on investigation activities and removal-related confirmation soil sampling, are shown in Figures 3-2, 3-3, 3-4, and 3-5.

Specific sources of contamination, as described in the *Former Screening Plant and Surrounding Properties, Operable Unit 2, Final Remedial Action Report* (CDM Smith 2012a), include the following:

- Surface soil within the OU2 boundary contains visible vermiculite and also LA at none-detected, trace, or less than 1 percent levels.
- Subsurface soil is known to contain vermiculite; the exact location and depths of vermiculite-containing soil are not fully documented or delineated.

3.4 Current Site Information

3.4.1 Parcel Ownership/Occupancy Information

The Listed parcel ownership information was collected from Montana Cadastral at the following web link: http://svc.mt.gov/msl/mtcadastral/.

3.4.1.1 Subarea 1 Parcel Contact Information

Owner: Parker, Melvin G and Lerah Lorane
PO Box 609
Libby, MT 59923

Subarea 1: The property is currently privately owned and is being used for residential purposes.

3.4.1.2 Subarea 2 Parcel Contact Information

Owner: KDC
Medler, Robert (Director)
6401 Poplar Ave, Suite 301
Memphis, TN 38119

Subarea 2: Currently owned by KDC, the ROW is used and maintained by the MDT. The Flyway is currently vacant, undeveloped land.

3.4.1.3 Subarea 3 Parcel Contact Information

Owner: Wise, R Eugene and Mary J
625 Conifer Rd
Libby, MT 59923

Subarea 3: The private property is currently vacant, undeveloped land. There are currently no plans to develop the property by the owners.

3.4.1.4 Subarea 4 Parcel Contact Information

Owner: Parker, Melvin G and Lerah Lorane
PO Box 609
Libby, MT 59923

Subarea 4: The Rainy Creek Road Frontages are currently privately owned, vacant and undeveloped land. It is anticipated that the property will remain as such.

3.4.2 Property Interest and Resource Ownership

There are currently no additional property interests at OU2 that may impact the ICs.

3.4.3 Current and Anticipated Future Site Land Use

3.4.3.1 Land Use

For all subareas of OU2, the ICs have been developed based upon the current land use, which is the anticipated future land use, as noted below.

Subarea 1, Former Screening Plant, is currently privately owned and includes the Highway 37 ROW adjacent to the west side of Highway 37. Subarea 1 is being used for residential purposes. It is anticipated that the property will continue to be used for residential and/ or commercial purposes.

Subarea 2, Flyway, is currently owned by KDC (a subsidiary of Grace). The Flyway is accessed through a gated entrance to the adjacent private property off Highway 37. The Flyway Subarea includes the Highway 37 ROW, which is adjacent to the west side of Highway 37. The ROW is used and maintained by the MDT. The Flyway is currently vacant, undeveloped land. At this time, the owners have no plans to develop this property.

Subarea 3, Private Property, consists of an approximate 1-acre parcel situated between the former Screening Plant and the Flyway, and bordered by Highway 37 to the northeast. This private property includes the Highway 37 ROW adjacent to the west side of Highway 37. A continuation of the Flyway ROW, this ROW is used and maintained by the MDT. The private property is currently vacant, undeveloped land. At this time, the owners have no plans to develop this property.

Subarea 4, Rainy Creek Road Frontages, are currently privately owned and lie immediately north and south of Rainy Creek Road on the east (i.e., mine) side of Highway 37. Approximately 45,000 ft^2 of land comprises the north frontage; approximately 39,000 ft^2 comprises the south frontage. For a short period, numerous trees were stored at the south frontage for use during restoration at the former Screening Plant. The Rainy Creek Road Frontages are currently vacant, undeveloped land. It is anticipated that the property will remain as such.

3.4.3.2 Groundwater Use

Since the EPA does not consider groundwater to be a viable pathway for exposure, OU2 does not include groundwater.

3.4.3.3 Surface Water Use

Potential impacts to surface water (Rainy Creek and the Kootenai River) will be considered when ecological risk is evaluated, and will be addressed as part of the OU3 remedial activities.

3.4.4 Responsible Parties and Stakeholders

There are currently no additional responsible parties or stakeholders other than those described above in Section 3.4.1.

3.4.5 Local Government Information

The City/County Board of Health has entered into a cooperative agreement with the EPA in which the Asbestos Resource Program (ARP) was developed. The ARP, under the direct supervision of the Lincoln County Environmental Health Department, was developed to assist with education, managing risks associated with asbestos exposure, and implementing initiatives to reduce the risk of asbestos exposure.

3.5 Site Mapping

Mapping of residual contamination, site boundaries, protective covers, remedy components, and site

features for OU2 is shown on Figure 3-6.

Section 4

Institutional Control Instruments

The following section outlines IC components and the four types of IC instruments (categories) in place at OU2: proprietary controls, governmental controls, enforcement documents, and informational devices.

4.1 Key Components

4.1.1 Institutional Controls Objectives

The following are the main objectives of the ICs in place at OU2:

1. Notify future land owners of presence of contamination and IC requirements.
2. Mitigate the potential for inhalation exposures to LA fibers that would result in excess cancer risks that exceed the EPA's acceptable cancer risk range of 1E-06 to 1E-04 (one in one million to one in ten thousand) or non-cancer hazard quotients greater than 1.
3. Control dispersion/erosion of contaminated soil by wind and water from source locations to prevent the spread of contamination to un-impacted locations and media.
4. Implement controls to prevent uses of the site that could pose unacceptable risks to human health or the environment or compromise the remedy.
5. Implement controls to prevent uses of the site that could spread contamination to un-impacted or previously remediated locations and media.

4.1.2 Current and Reasonably Anticipated Land Use

The ICs in place at OU2 are expected to allow for the current and anticipated uses of residential and commercial use at the site. ICs are expected to serve to control any potential disturbance of the protective cap through such means as the Deed Notice, U-Dig, MDT encroachment permit, contacting the ERS, and the EPA Information Center.

4.1.3 Instrument Duration

All IC Instruments set forth for OU2 are expected to be in-place in perpetuity. The only condition for termination of individual IC Instruments will be the complete removal and proper disposal of all contaminated soil.

4.2 Instrument Categories

Institutional controls are typically divided into four distinct categories: proprietary controls, government controls, enforcement documents, and informational devices. The following sections identify the IC instruments associated with the Site under each of these four categories.

4.2.1 Proprietary Controls

DEQ may choose to implement an IC pursuant to MCA 75-10-727 intended to notify future land owners of previous remedial action completed at the site, the potential presence of contamination within soils, and IC requirements within OU2. In the event any such instrument is implemented by

DEQ, it will be appended to this plan.

Use Restrictions

Any use restrictions for this IC will be identified in DEQs environmental covenant pursuant to MCA 75-10-727.

4.2.2 Government Controls

Government controls at OU2 include U-Dig. Montana state law (MCA 2013, 69-4-503) requires that all parties planning to excavate, drill, or perform other subsurface activities notify the designated U-Dig notification center prior to the start of these activities. The ERS is notified by the U-Dig call center for all activities planned within the site boundaries. Advice on how to address the contamination, if disturbance is required, would be obtained from the ERS. In addition to providing advice and instruction, the ERS will manage any contamination encountered.

Use Restrictions

Use restrictions related to this government control are identified by Montana state law (MCA 2013, 69-4-503). Persons intending to disturb the protective cover in place at OU2 will be required to notify a designated "One-call" center (i.e., U-Dig) prior to conducting the activities. The ERS will then provide advice on performing the activities according to site best management practices, and provide assistance with management/disposal of contamination encountered.

4.2.3 Enforcement Documents with Institutional Control Components

Enforcement documents related to OU2 include an MDT encroachment application and permit. All individuals and organizations intending to perform work within the ROW of Montana Highway 37 must apply for an encroachment permit with the MDT. Any application for the OU2 ROW along Highway 37 is accompanied by an addendum, which notifies the permittee to take precautions to guard against potential exposure to LA contamination. A copy of the MDT encroachment permit and addendum is included in this document as Appendix A.

Use Restrictions

Use restrictions related to these enforcement documents are identified within the MDT encroachment permit and addendum. Applicants will be provided with restrictions on activities that may penetrate the protective cover, and may result in disturbance and transportation of potentially contaminated sub-surface soil.

4.2.4 Informational Devices

Informational devices related to OU2 include the ERS as described in Section 3.2.3.

In addition to the ERS, all information for the site (historical and current site documents, such as the OU2 O&M Plan) and any associated best management practices, are available to the public at the EPA Information Center. This informational device will be maintained by the EPA or another government organization throughout the lifespan of IC instrument implementation at the site.

Use Restrictions

No use restrictions are associated with this informational device. The EPA Information Center (or other government organization) will simply act as an informational resource.

Section 5

Institutional Control Implementation

The following table (Table 5-1) provides a brief summary of the implementation for all IC instruments for OU2 set forth by this plan.

Exhibit 5-1 Summary of IC Implementation

Instrument Name	Deed Notice	U-Dig	Encroachment Permit	ERS	Information Center	O&M Plan
Instrument Category	Proprietary Control	Government Controls	Enforcement Document	Informational Device	Informational Device	Informational Device
IC Objectives (a)	1, 2, 3, 4, 5	2, 3, 4, 5	2, 3, 4, 5	2, 3, 4, 5	1, 2, 3, 4, 5	2, 3, 4, 5
Use Restrictions	Not Applicable	Not Applicable	Penetration of the protective cover, disturbance and transportation of potential contaminated sub-surface soil	Not Applicable	Not Applicable	Best Management Practices and Engineering Controls
Implementation Prerequisites	Notice to be developed and attached to land title	Already in place	Already in place	Already in place	Already in place	Already in place
Implementation Complete	Legal recording of Deed Notice	Already in place	Already in place	Already in place	Already in place	Already in place
Person or Organization Responsible for Performing Implementation and Contact Information	DEQ	EPA / DEQ	MDT	EPA / DEQ	EPA / DEQ	EPA / DEQ
Instrument Lifespan	In perpetuity					
Conditions for Termination of IC	Complete removal and disposal of all contamination at site					

(a) IC Objectives

1. Notify future land owners of presence of subsurface contamination and IC requirements.
2. Mitigate the potential for inhalation exposures to LA fibers that would result in excess cancer risks that exceed the EPA's acceptable cancer risk range of 1E-06 to 1E-04 (one in one million to one in ten thousand) or non-cancer hazard quotients greater than 1.
3. Control dispersion/erosion of contaminated soil by wind and water from source locations to prevent the spread of contamination to un-impacted locations and media.
4. Implement controls to prevent uses of the site that could pose unacceptable risks to human health or the environment or compromise the remedy.
5. Implement controls to prevent uses of the site that could spread contamination to un-impacted or previously remediated locations and media.

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Section 6

Institutional Control Maintenance

Institutional control maintenance consists of periodic monitoring and reporting to confirm that ICs are in place and providing protection as intended. Maintenance activities consist of notifications to new land owners or lessees, continuing education for landowners and property users through annual updates and information available through the EPA Information Center, and periodic review of the property and ICs by the implementing agency, entity, or organization.

In the event of a transfer of ownership, it is the transferor's responsibility to ensure that the new owner or tenant is informed of the ICs in place at the property. In the event of a property transfer, the intended use of the property may need to be evaluated to determine if the existing ICs in place are sufficient to protect the public from exposure.

To facilitate monitoring of the ICs, roles and responsibilities, schedule, and corrective actions, and reporting requirements will be performed in accordance with the O&M plan and its associated checklists.

Periodic monitoring will consist of at least yearly investigations. ICs will be evaluated and updated on an annual basis. The routine and critical evaluation of IC will assess:

1. Whether the selected IC instruments remain in place.
2. Whether the ICs are enforced such that they meet the stated objectives and performance goals and provide protection required by the response (EPA 2012b).

In the event of a property transfer or change of use, more frequent monitoring may be necessary.

Similar to employee education, public education can serve as an important tool for IC maintenance. A well-informed public can provide extra monitoring during use of the site. In the event a member of the public identifies a potential issue at the site, a method of reporting should be made available. For the site, the ERS is available to the community to respond to concerns and provide information and guidance.

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Section 7

Institutional Control Enforcement

Institutional control enforcement consists of methods for addressing issues related to improper or incomplete implementation of ICs, maintenance of ICs, and breaches of ICs. Generally, enforcement at the site will be the responsibility of the EPA or DEQ and MDT. In the event that enforcement is not properly implemented, the EPA has the authority to request compliance, and if necessary, impose penalties for lack of compliance or in cases of ongoing non-compliance.

At the site, enforcement of Deed Notices is an administrative process that can be supported by legal action if necessary. In the case of easements, legal action is often necessary in the event of enforcement problems or issues. Informational ICs are generally not an enforceable component, but if the responsible entity has failed to implement the ICs outlined, legal action may be used to ensure the ICs are implemented as designed.

Guidance recommends that often the most effective method of enforcement is early problem identification and communication. This can include site visits and issuing letters or notices to provide documentation of the problem.

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Section 8

Institutional Control Modification and Termination

At the site, modification of ICs may be required in the event of a change in land use or ownership. If an event occurs that could lead to a modification, this plan should be reviewed and revised accordingly to ensure the ICs at the site continue to provide adequate protection. Termination of ICs may occur if all remaining contamination at the site is removed to a level below that which poses a risk to health and the environment. The EPA is responsible for determining modification of this document. The EPA, DEQ, and/or MDT are responsible for termination of ICs related to this site.

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Section 9
References

CDM Smith. 2010. *Sampling and Analysis Plan, General Property Investigation*, Libby Asbestos Site, Operable Unit 4. April 23.

_____. 2012a. *Final Remedial Action Report, Operable Unit 2 – Former Screening Plant and Surrounding Properties*, Libby Asbestos Superfund Site, Lincoln County, Montana. April 20.

_____. 2012b. *Sampling and Analysis Plan/Quality Assurance Project Plan: 2012 Post-Construction Activity-Based Sampling*, Libby Asbestos Site, Operable Unit 2, Revision 0. August.

EPA. 2009. *Final Remedial Investigation Report, Operable Unit 2 – Former Screening Plant and Surrounding Properties*, Libby Asbestos Site, Libby Montana. August 24.

_____. 2010. *Record of Decision for Libby Asbestos Superfund Site, The Former Screening Plant and Surrounding Properties,* Operable Unit 2, Lincoln County Montana. May.

_____. 2012a. *Institutional Controls: A Guide to Preparing Institutional Control Implementation and Assurance Plans at Contaminated Sites*, OSWER 9200.0-77, EPA-540-R-09-002. December.

_____. 2012b. *Interim Final Guidance: Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST and RCRA Corrective Action Cleanups*. December.

_____. 2013a. *Draft Post-Remediation Human Health Risk Assessment,* Operable Unit 2, Libby Asbestos Superfund Site, Libby, Montana, April.

_____. 2013b. *Operations and Maintenance Plan, The Former Screening Plant and Surrounding Properties*, Operable Unit 2, Libby Asbestos Superfund Site, Lincoln County, Montana, June 12.

Meeker GP, Bern AM, Brownfield IK, Lowers HA, Sutley SJ, Hoeffen TM, Vance JS. 2003. The Composition and Morphology of Amphiboles from the Rainy Creek Complex, Near Libby, Montana. *American Mineralogist*. 88:1955-1969.

MCA. 2013. Title 69. Public Utilities and Carriers, Chapter 4. Utility Lines and Facilities, Part 5. Excavations Near Underground Facilities, 69-4-501. Definitions.

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Figures

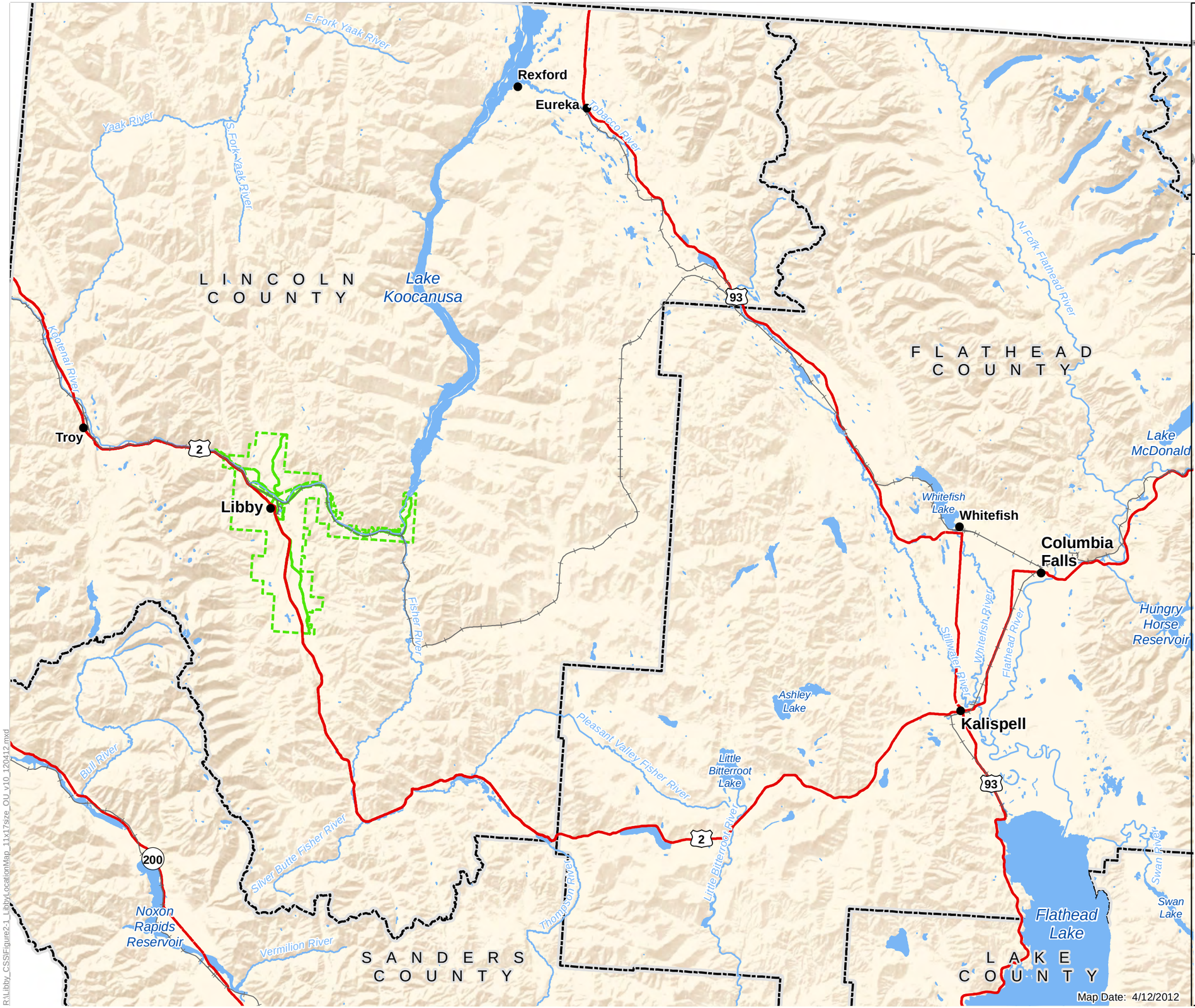

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Figure 1-1

Site Location Map
Libby Asbestos Site
Lincoln County, Montana

CDM Smith

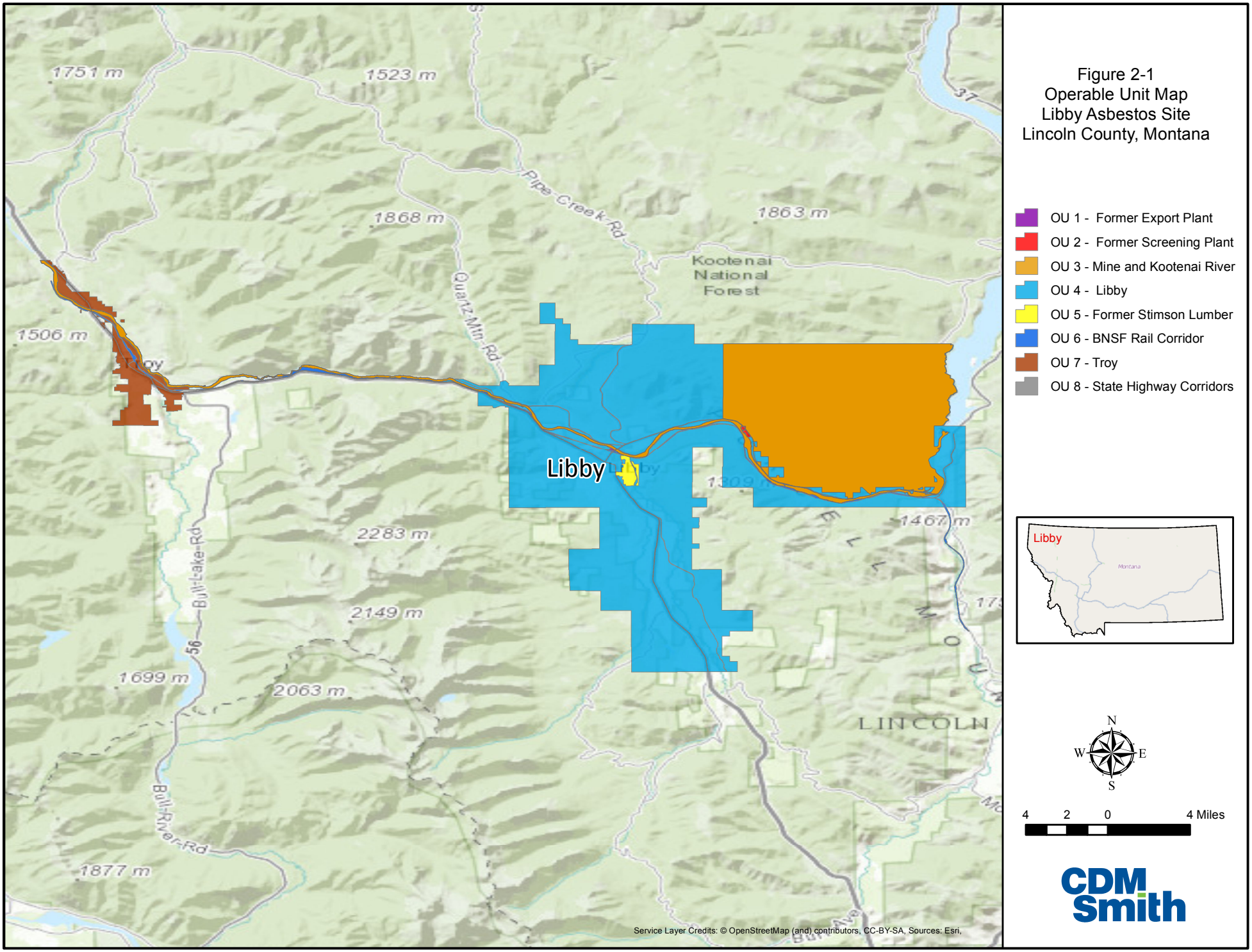
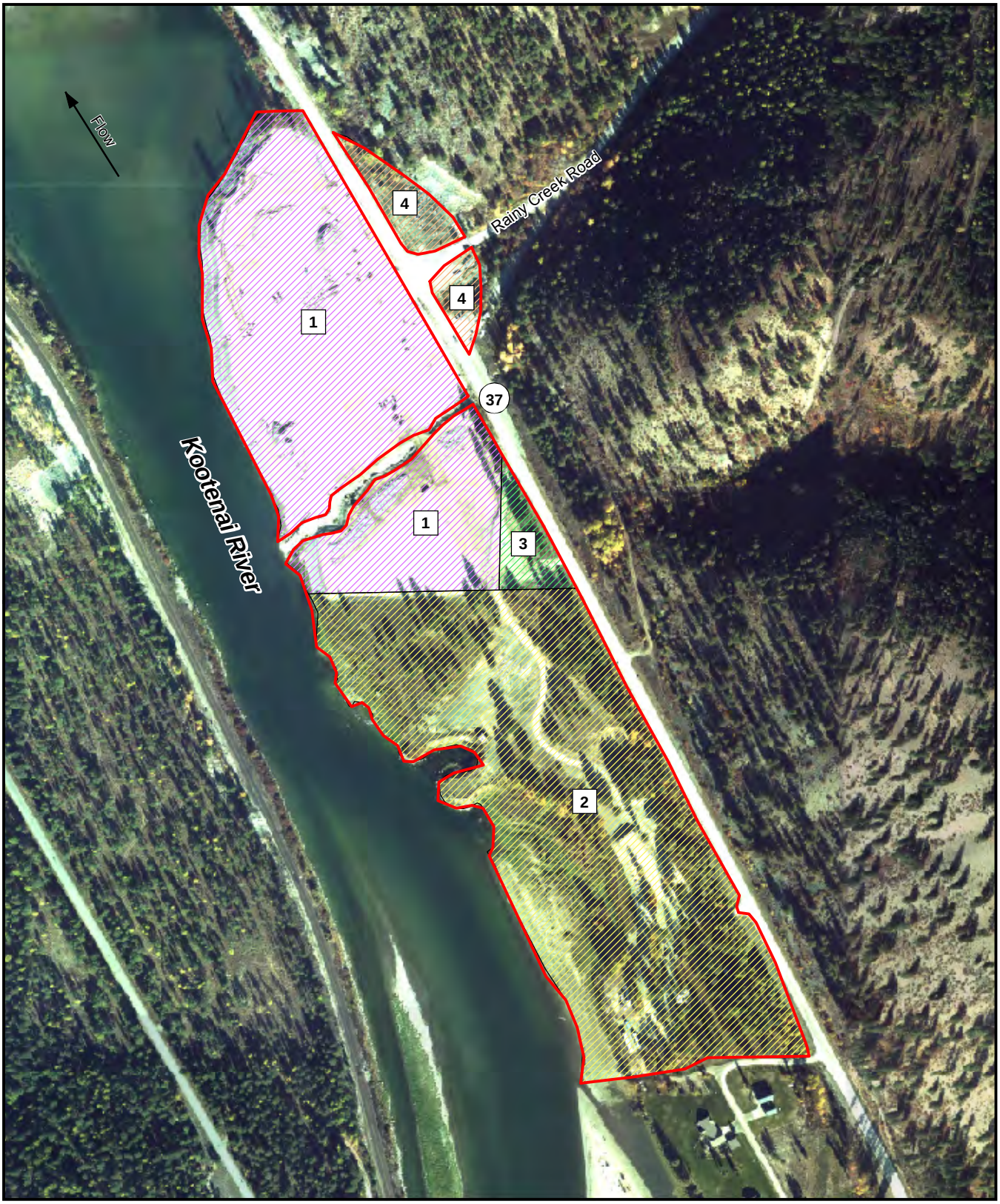


Figure 2-1
Operable Unit Map
Libby Asbestos Site
Lincoln County, Montana
OU 1 - Former Export Plant
OU 2 - Former Screening Plant
OU 3 - Mine and Kootenai River
OU 4 - Libby
OU 5 - Former Stimson Lumber
OU 6 - BNSF Rail Corridor
OU 7 - Troy
OU 8 - State Highway Corridors
Libby
Montana
N
W
E
S
4 2 0 4 Miles
CDM Smith
Libby
1751 m
1523 m
1868 m
1863 m
Pipe Creek Rd
Kootenai National Forest
Quartz Mtn Rd
1506 m
2283 m
1467 m
2149 m
1699 m
2063 m
Bull Lake Rd
56
Bull River Rd
1877 m
LINCOLN
Service Layer Credits: © OpenStreetMap (and) contributors, CC-BY-SA, Sources: Esri,



Legend

- OU2 Boundary
- Subarea 1 - Former Screening Plant
- Subarea 2 - Flyway
- Subarea 3 - Private Property
- Subarea 4 - Rainy Creek Road Frontages

N

0 200 400 800

Feet

1 inch = 400 feet

Figure 3-1
OU2 Site Layout
Libby Asbestos Superfund Site
Lincoln County, Montana

CDM Smith

Subarea 4

Rainy Creek Road (Frontage)

Note: Contamination may be found at shallow depths around utility poles and guy wire anchors (typically at a 1:1 slope).

Kootenai River

Rainy Creek (Lower Reach)

Subarea 3

Private Property

Subarea 1

Former Screening Plant

Subarea 3

Flyway

Legend

- ND for LA at < 1 foot
- ND for LA at 1-2 feet
- ND for LA at 2-3 feet
- ND for LA at > 4 feet
- ND at Surface
- TR at Surface
- Trace LA at 0 - 6 inches
- Trace LA at 6 - 12 inches
- < 1% LA at < 1 foot
- < 1% LA at 1-2 feet
- < 1% LA at 2-3 feet
- < 1% LA at 3-4 feet
- **Utility Poles** - Contamination may be Found at Shallow Depths
- < 1% LA at > 4 feet
- >= 1% LA at < 1 foot
- >= 1% LA at 1-2 feet
- Residual Contamination may be Found at 1-2 feet
- Residual Contamination may be Found at 2-3 feet
- Residual Contamination may be Found at 3-4 feet
- Residual Contamination may be Found at > 4 feet
- Seasonally Underwater Areas
- Rip Rap Cap
- OU2 Subareas
- OU2 Boundary
- Heavy Vegetation
- 2010 Removal Areas

All depths are measured from current existing ground surface.

N W E S

Scale of Feet

0 75 150 225

1 inch = 225 feet

Figure 3-2 Location and Depth of Residual Contamination at OU2 Based on Investigation Activities and Removal-related Confirmation Soil Sampling

CDM Smith

Figure 3-3
Location and Depth of Residual Contamination at OU2 Subareas 1 and 4 Based on Investigation Activities and Removal-related Confirmation Soil Sampling
Libby Asbestos Superfund Site
Lincoln County, Montana

CDM Smith

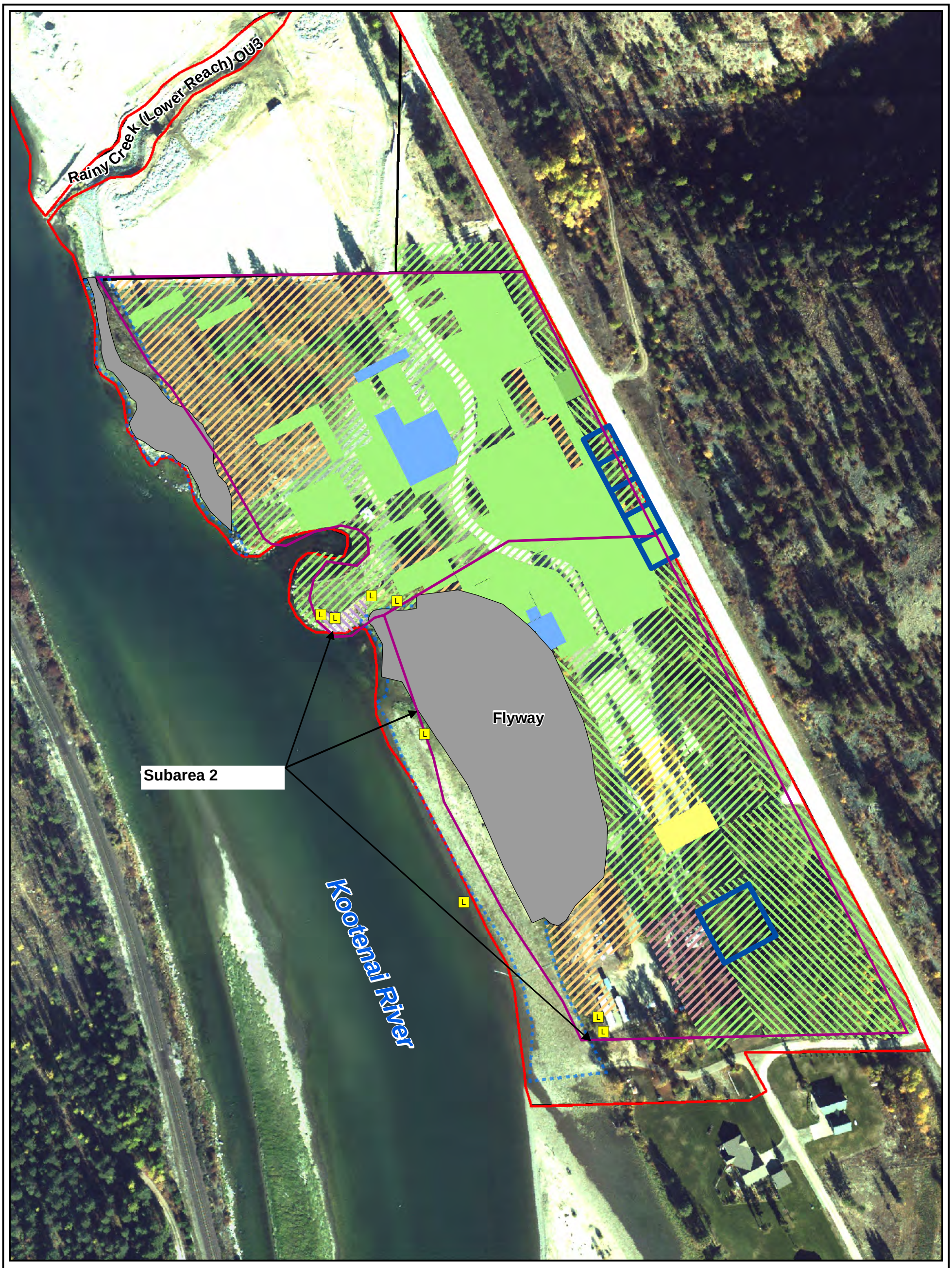


Figure 3-4
Location and Depth of Residual Contamination at OU2 Subarea 2 Based on Investigation Activities and Removal-related Confirmation Soil Sampling
Libby Asbestos Superfund Site
Lincoln County, Montana

CDM Smith

N

0 80 160 320

Feet

1 inch = 160 feet

Legend

- ND for LA at 1-2 feet
- < 1% LA at 1-2 feet
- Wise Property
- OU2 Subareas
- OU2 Boundary

Figure 3-5
Location and Depth of Residual Contamination at OU2 Subarea 3 Based on Investigation Activities and Removal-related Confirmation Soil Sampling
Libby Asbestos Superfund Site
Lincoln County, Montana

CDM Smith

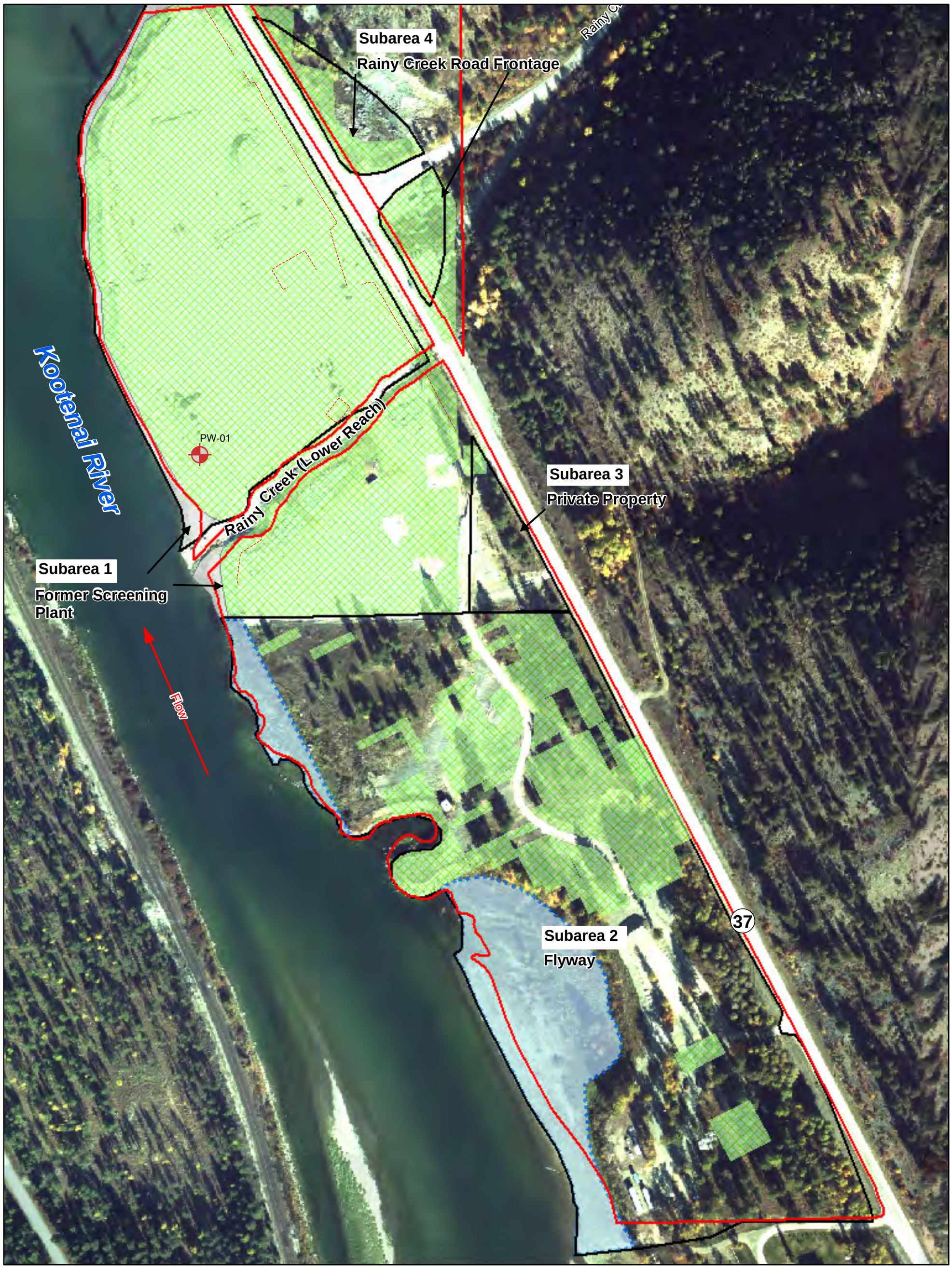


Figure 3-6
Location of Protective Covers and Remedy Components at OU2
Libby Asbestos Superfund Site
Lincoln County, Montana

CDM Smith

Appendix A

Montana Department of Transportation (MDT) Encroachment Application and Permit and Addendum

STATE OF MONTANA - DEPARTMENT OF TRANSPORTATION
HELENA, MT 59620-1001
ENCROACHMENT APPLICATION AND PERMIT

– To be filled in by Department of Transportation Personnel –

AGREEMENT NO.: _____ **MAINTENANCE NO.:** _____

PROJECT NO.: _____ **SIGN ROUTE:** _____

PROJECT NAME: _____ **ID NUMBER:** _____

CORRIDOR: _____ **RB:** _____ **MP:** _____

COUNTY: _____

– To be filled in by Department of Transportation Personnel and the requesting Company –

_____	_____	_____	_____
COMPANY OR CORPORATION	**Date**	**MONTANA DEPARTMENT OF TRANSPORTATION**	**Date**
_____		_____	
TITLE		**TITLE**	
_____		_____	
SIGNATURE		**SIGNATURE**	

Subject to the terms and conditions shown on Page 2 hereof; this permit is hereby approved and granted.

The "Permittee" agrees to the terms of this permit.

APPLICANT (PROPERTY OWNER)

APPLICATION FOR PERMISSION TO: _____*_____
(Give sufficient detail to permit thorough understanding and submit blueprints or sketches in triplicate.)
***If work involves Environmental-Related cleanup or monitoring, also complete Section 7.**

Township	Range	Section
_____	_____	_____

1. Name of Applicant: _____
2. Address of Applicant: _____
3. Applicant's Phone #: _____ Fax #: _____ Email: _____
4. If Applicant is a Corporation, give State of Incorporation and names of President and Secretary:
   _____
5. Highway survey stations, milepost, distances to centerline, and distance from right-of-way line (in metric units) near which installations or structures will be installed:
   _____
6. For how long a period is the permit desired?: _____
7. Nature of Permit: _____
8. Environmental actions involving hazardous waste sites? (Superfund, Spills, Underground Storage Tanks, Old Mines, etc.)

   YES: ☐ If YES is checked continue to **Page 3** to complete the **Environmental Questions Pertaining to #8 on Page #1.**

   NO: ☐ If No is checked continue to **Page 2**, **Instructions Concerning Use of this Form**.

(INSTRUCTIONS
CONCERNING USE OF THIS FORM)

Applicant will complete this form along with plans, sketches and an environmental checklist and send to the appropriate District Maintenance Chief for review and approval.

AN ENVIRONMENTAL CHECKLIST MUST BE COMPLETED BY APPLICANT AND MUST BE ATTACHED TO THIS PERMIT. THE PERMIT MUST NOT BE PROCESSED WITHOUT AN ENVIRONMENTAL CHECKLIST.

IF THE PROPOSED INSTALLATION WILL RESULT IN SIGNIFICANT, PERMANENT OR LONG TERM IMPACTS TO THE TRANSPORTATION NETWORK IN TERMS OF SUBSTANTIAL INCREASE TRAFFIC VOLUMES, WEIGHT OR DELAYS TO TRAFFIC ON STATE ROADWAYS, SUCH AS MAJOR MINES GREATER THAN FIVE ACRES, A RAILROAD AT–GRADE CROSSING, RAILROAD UNDER OR OVERPASS, OR STRIP MINES, OR IF THE PROPOSED ACTION HAS PERMANENT IMPACTS TO OTHER FORMS OF TRANSPORTATION (RAIL, TRANSIT, OR AIR MOVEMENT), THE ENCROACHMENT PERMIT MUST BE SUBMITTED TO THE TRANSPORTATION PLANNING DIVISION FOR REVIEW PRIOR TO ISSUANCE OF THIS PERMIT.

Subject to the following terms and conditions, the permit applied for upon the reverse side hereof, is hereby granted:

1. TERM. This permit shall be in full force and effect from the date hereof until revoked as herein provided.

2. FEE. The fee for issuance of this permit is ._____.

3. REVOCATION. This permit may be revoked by State upon giving **45** days notice to Permittee by ordinary mail, sent to the address shown herein. However, the State may revoke this permit without notice if Permittee violates any of its conditions or terms.

4. COMMENCEMENT OF WORK. No work shall be commenced until Permittee notifies the Maintenance Chief shown in application the date the Permittee proposes to commence work.

5. CHANGES IN HIGHWAY. If State highway changes necessitate changes in structures or installations installed under this permit, Permittee will make necessary changes without expense to State.

6. STATE SAVED HARMLESS FROM CLAIMS. As a consideration of being issued this permit, the Permittee, its successors or assigns, agrees to protect the State and save it harmless from all claims, actions or damage of every kind and description which may accrue to, or be suffered by, any person or persons, corporations or property by reason of the performance of any such work, character of materials used, or manner of installations, maintenance and operation, or by the improper occupancy of said highway right-of-way, and in case any suit or action is brought against the State and arising out of, or by reason of, any of the above causes, the Permittee, its successors or assigns, will, upon notice to them of the commencement of such action, defend the same at its sole cost and expense and satisfy any judgment which may be rendered against the State in any such suit or action.

7. PROTECTION OF TRAFFIC. The Permittee shall protect the work area with traffic control devices that comply with the Manual of Uniform Traffic Control Devices. The Permittee may be required to submit a traffic control plan to the Maintenance Chief for approval prior to starting work. During work, the Maintenance Chief or designee may require the Permittee to use additional traffic control devices to protect traffic or the work area. No road closure shall occur without prior approval from the District Engineer.

8. HIGHWAY AND DRAINAGE. If the work done under this permit interferes in any way with the drainage of the State highway affected. Permittee shall, at the Permittee's expense, make such provisions as the State may direct to remedy the interference.

9. RUBBISH AND DEBRIS. Upon completion of work contemplated under this permit, all rubbish and debris shall be immediately removed and the roadway and roadside left in a neat and presentable condition satisfactory to the State.

10. INSPECTION. The installation authorized by this permit shall be in compliance with the attached plan and the conditions of this permit. The Permittee may be required to remove or revise the installation, at sole expense of Permittee. If the installation does not conform with the requirements of this permit or the attached plan.

11. STATE'S RIGHT NOT TO BE INTERFERED WITH. All changes, reconstruction or relocation shall be done by Permittee so as to cause the least interference with any of the State's work, and the State shall not be liable for any damage to the Permittee by reason of any such work by the State, its agents, contractors or representatives, or by the exercise of any rights by the State upon the highways by the installations or structures placed under this permit.

12. REMOVAL OF INSTALLATIONS OR STRUCTURES. Unless waived by the State, upon termination of this permit, the Permittee shall remove the installations or structures installed under this permit at no cost to the State and restore the premises to the prior existing condition, reasonable and ordinary wear and tear and damage by the elements, or by circumstances over which the Permittee has no control, excepted.

13. MAINTENANCE AT EXPENSE OF PERMITTEE. Permittee shall maintain, at its sole expense, the installations and structures for which this permit is granted, in a condition satisfactory to the State.

14. STATE NOT LIABLE FOR DAMAGE TO INSTALLATIONS. In accepting this permit, the Permittee agrees that any damage or injury done to said installations or structures by a contractor working for the State, or by any State employee engaged in construction, alteration, repair, maintenance or improvement of the State highway, shall be at the sole expense of the Permittee.

15. STATE TO BE REIMBURSED FOR REPAIRING ROADWAY. Upon being billed, therefore, Permittee agrees to promptly reimburse State for any expense incurred in repairing surface of roadway due to settlement at installation, or for any other damage to roadway as a result of the work performed under this permit.

16. The Permittee shall not discharge or cause discharge of any hazardous or solid waste by the installation or operation of the facility of a State Right-of-Way.

17. The Permittee will control noxious weeds within the disturbed installation area for two (2) years.

18. In accordance with Mont. Code Ann. § 76-3-403(2), Permittee shall, at Permittee's expense, employ the services of a Montana Licensed Professional Land Surveyor to re-establish all existing survey monuments disturbed by work contemplated under this permit.

19. The use of explosives is prohibited for the installation.

20. Any condition of this permit shall not be waived without written approval of the appropriate District Engineer.

21. OTHER CONDITIONS AND/OR REMARKS: _____

Environmental Questions Pertaining to #8 on Page #1- Environmental actions involving hazardous waste sites? (Superfund, Spills, Underground Storage Tanks, Old Mines, etc.)

8a. Name of Facility:_____ Facility ID:_____

Address: _____

City: _____State:_____Zip: _____

8b. Leaking underground storage tank site? ☐ Yes ☐ No

If yes, provide MDEQ identification number: _____

Petro Fund Eligible? ☐ Yes ☐ No

8c. Remediation Response Sites (State Superfund Site)? ☐ Yes ☐ No

If yes, identification number and/or site name: _____

8d. Federal Superfund Site? ☐ Yes ☐ No

If yes, identification number and/or site name: _____

8e. Active Mine: ☐ Yes ☐ No **OR** Abandoned Mine: ☐ Yes ☐ No

If yes, list the Mine Site ID#: _____

Mine Description or Name: _____

8f. Spill: ☐ Yes ☐ No

Spill Site: _____

Spill Description: _____

8g. Other Environmental Action: _____

For each well installed in MDT R/W, provide GPS coordinates in state plane coordinates (preferred) or well survey information in another format (continue on another sheet if necessary).

NOTE: Each well request needs to be submitted on a separate application form.

Well Designation	**Easting**	**Northing**

Control Number	Project Identification Number	Name/ Location Description	Route/Corr.	Fed Funds Involved? Yes ☐ No ☐

(↑For MDT Use Only↑)

ENVIRONMENTAL CHECKLIST for:

☐ **Approach Permit** ☐ **Encroachment/Occupancy (incl. Utility)**

☐ **Maintenance Projects (with No Right-Of-Way Acquisition, Sale or Transfer)**

Location: Highway or Route: _____ Milepost(s): _____

Physical Address: _____ City: _____

Legal Description: County: _____ Township: _____ Range: _____ Section(s):

Applicant Information: Name: _____ Phone: _____

Company/Utility _____ Business Phone: _____

Mailing Address: _____ City _____ State _____ Zip Code _____

	Impact Questions Actions that qualify for Categorical Exclusion under MEPA and/or NEPA (See ARM 18.2.261 and 23 CFR 771.117)	**Yes**	**No**	**Comment, Explanation, and/or Informat Source (Attach supporting information, necessary.)**
1.	Will the proposed action impact any known historical or archaeological site(s)?	☐	☐	
2.	Will the proposed action impact any publicly owned parkland(s), recreation area(s), wildlife or waterfowl refuge(s)?	☐	☐	
3.	Will the proposed action impact prime farmlands? (If yes, attach a completed Farmland Conversion Impact Rating Ad-1006.)	☐	☐	
4.	a. Will the proposed action have an impact on the human environment that may result from relocations of persons or businesses, changes in traffic patterns, changes in grade, or other types of changes?	☐	☐	
	b. Has the proposed action received any preliminary or final approval from the local land use authority?	☐	☐	
5.	For the proposed action, is there documented controversy on environmental grounds? (For example, has the applicant received a letter of petition from an environmental organization?)	☐	☐	
6.	Will the proposed action require work in, across or adjacent to a listed or proposed Wild or Scenic River?	☐	☐	
7.	Will the proposed action require work in a Class I Air Shed or nonattainment area?	☐	☐	
8.	Will the proposed action impact air quality or increase noise, even temporarily?	☐	☐	
9.	Will the proposed action have potential to affect water quality, wetlands, streams or other water bodies? If the answer is YES, an environment-related permit or authorization may be required.	☐	☐	
10.	Are solid or hazardous wastes or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.)	☐	☐	
11.	a. Are there any listed or candidate threatened or endangered species, or critical habitat in the vicinity of the proposed action?	☐	☐	
	b. Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	☐	☐	
12.	Will the proposed action require an environmental-related permit or authorization? If the answer is "yes," please list the specific permits or authorizations.	☐	☐	
13.	a. Is the proposed action on or within approximately 1 mile of an Indian Reservation?	☐	☐	
	b. If "Yes", will a Tribal Water Permit be required	☐	☐	N/A ☐
14.	Will the proposed action result in increased traffic volumes, increased wait or delays on state highways, or have adverse impacts on other forms of transportation (rail, transit or air movements)?	☐	☐	
15.	Is the proposed action part of a project that may require other governmental permits, licenses or easements? If "Yes", describe the full extent of the project and any other permits, licenses or easements that may be necessary for the applicant to acquire.	☐	☐	

16. ☐ Attach a brief description of the work to be performed, including any subsurface work.

17. ☐ Attach representative photos of the site(s) where the proposed action would be implemented. Photos are to include any structures, streams, irrigation canals, and/or potential wetlands in the project area.

18. ☐ Attach map(s) showing the location(s) of the proposed action(s); Section, Township, Range; highway or route number and approximate route post(s).

Checklist preparer: _____

Applicant Title Date

Reviewed for completeness by:

MDT District Representative	Title	Date

Checklist Approved by:

Environmental Services Bureau (When any of the items 1 through 15 are checked "Yes")	Title	Date
Transportation Planning (When items 14 or 15 are checked "Yes")	Title	Date

Checklist Conditions and Required Approvals

A. The Applicant is **not** authorized to proceed with the proposed work until the checklist has been reviewed and approved, as necessary, and any requested conditions of approval have been incorporated.

B. Complete the checklist items 1 through 15, indicating "Yes" or "No" for each item. Include comments, explanations, information sources, and a description of the magnitude/importance of potential impacts in the right hand column. Attach additional and supporting information as needed. Ensure that information required for items 16, 17, and 18, is attached. The checklist preparer, by signing, certifies the accuracy of the information provided.

C. If "Yes" is indicated on any of the items, the Applicant must explain the impacts as applicable. Appropriate mitigation measures that will be taken to avoid, minimize, and/or mitigate adverse impacts must also be described. **Any proposed mitigation measures will become a condition of approval.** Use attachments if necessary. If the applicant checks "No" and the District concludes there may in fact be potential impacts, the Environmental Checklist must be forwarded to Environmental Services Bureau for review and approval.

D. If "Yes" is indicated in item 11 a. (threatened or endangered species), the Applicant should provide information naming the particular species and the expected location, distribution and habitat use in the proposed action area, i.e. within the immediate area of the proposed action; or, in the general area on occasion (seasonally passes through) but does not nest, den or occupy the area for more than a few days.

E. If the applicant checks "Yes" for any item, the approach permit, occupancy agreement or permit, along with the checklist and supporting information, including the Applicant's mitigation proposal, documentation, evaluation and/or permits must be submitted to MDT Environmental Services Bureau. Electronic format is preferred.

F. When the applicant checks "Yes" to any item, the Applicant cannot be authorized to proceed with the proposed work until the MDT Environmental Services Bureau and/or Transportation Planning, as appropriate, reviews the information and signs the checklist.

G. Applicant must obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning the proposed action or activity. The Applicant is solely responsible for any environmental impacts incurred as a result of the project; obtaining any necessary environmental permits, notifications, and/or clearances; and ensuring compliance with environmental laws and regulations.

Montana's Wild and Scenic Rivers system as published by the U.S. Department of Agriculture, or the U.S. Department of the Interior:

1. Middle Fork of the Flathead River (headwaters to South Fork of the Flathead River confluence)
2. North Fork of the Flathead River (Canadian Border to Middle Fork of the Flathead River confluence)
3. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir)
4. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge)

Stream Permitting Guidelines

To be used for informational purposes when filling out the Environmental Checklist for MDT approach permits, encroachment/occupancy permits or Maintenance projects.

The most commonly required permits or authorizations are listed below. **Other permits or authorizations may be required**, and other laws may apply depending on the type and the location of the proposed activity. For more information please refer to "A Guide to Stream Permitting in Montana" available on the Internet at http://www.dnrc.mt.gov/permits/ or from your local conservation district office. (The information provided below was adapted from "A Guide to Stream Permitting in Montana")

Montana Natural Streambed and Land Preservation Act (310 Permit)

Any private, nongovernmental individual or entity that proposes any activity that physically alters or modifies the bed or banks of a **perennially flowing stream** must obtain a 310 permit before beginning work.

Contact the conservation district office to obtain a permit application, fill the application out and submit it to the local conservation district prior to any activity in or near a perennial-flowing stream. Once an application is accepted, a team that consists of a conservation district representative; a Department of Fish, Wildlife and Parks biologist; and the applicant may conduct an on site inspection. The team makes recommendations to the conservation district board, which has 60 days from the time the application is accepted to approve, modify, or deny the permit. Local rules apply. There is no charge for a 310 permit.

For more information, contact your local conservation district or the Conservation Districts Bureau – MT Department of Natural Resources and Conservation at (406) 444-6667, or the Montana Association of Conservation Districts (406) 443-5711

Montana Stream Protection Act (SPA 124 Permit)

Any agency or subdivision of federal, state, county, or city government proposing a project that may affect the natural existing shape and form of **any stream** or its banks or tributaries must obtain a SPA 124 permit before beginning work.

Any agency or unit of government planning a project must submit a Notice of Construction (application) to the Department of Fish, Wildlife and Parks, which has up to 60 days to review the application, perform an on-site investigation, and approve, modify, or deny the application. There is no application fee.

For more information contact the Habitat Protection Bureau – MT Fish, Wildlife and Parks (406) 444-2449.

Montana Floodplain and Floodway Management Act (Floodplain Development Permit)

Anyone planning new construction **within a designated l00 year floodplain** must obtain a floodplain development permit before beginning work. New construction includes, but is not limited to, placement of fill, roads, bridges, culverts, transmission lines, irrigation facilities, storage of equipment or materials, and excavation; new construction, placement, or replacement of manufactured homes; and new construction, additions, or substantial improvements to residential and commercial buildings. Check with local planning officials or the Floodplain Management Section of the Department of Natural Resources and Conservation to determine whether a 100-year floodplain has been designated for the stream of interest.

Floodplain Development Permits are available from the local floodplain administrator, who may be the city/county planner, sanitarian, building inspector, town clerk, or county commissioner.
Permit applications are available from the local floodplain administrator or from the Department of Natural Resources and Conservation. Application fees are established by the local government and vary widely throughout the state. The application process may take up to 60 days. Joint application participant-see Permitting Tips section.

For more information contact the Floodplain Management Section – MT Department of Natural Resources and Conservation (406) 444-0860.

Federal Clean Water Act (404 Authorization or Permit)

Anyone proposing a project that will result in the **discharge or placement of dredged or fill material into waters of the United States** must obtain a 404 authorization or permit before beginning work. "Waters of the United States" include lakes, rivers, streams (including perennial, intermittent, and ephemeral channels with an ordinary high water mark), wetlands, and other aquatic sites.

Anyone planning a project must submit an application to the U.S. Army Corps of Engineers (Corps). The U.S. Environmental Protection Agency also has regulatory review and enforcement functions under the law. Permit authorization varies depending on the size and scope of the intended project.

Activities that meet the conditions for a Nationwide or Regional General Permit may be approved in 10 to 45 days. Individual Permits require more extensive review and require a public notice period. Permit approval may take 90 to 120 days. Application fees for Individual Permits may vary from $10 for private individuals to $100 for commercial applicants. Do not send money with the application. Applicants will be notified if a fee applies.

For more information contact the U.S. Army Corps of Engineers, 10 West 15th Street, Suite 2200, Helena, MT 59626, Phone (406) 441-1375.

Short-term Water Quality Standard for Turbidity (318 Authorization)

Anyone initiating construction activity that will cause **short term or temporary violations of state surface water quality standards for turbidity in any "State water"** must obtain a 318 Authorization before beginning work. "State water" includes any body of water, irrigation system, or drainage system, either surface or underground, including wetlands, except for irrigation water where the water is used up within the irrigation system and the water is not returned to other state water.

A 318 Authorization must be obtained prior to initiating a project. The authorization may be obtained from the Department of Environmental Quality, or may be waived by the Department of Fish, Wildlife and Parks during its review process under the Natural Streambed and Land Preservation Act (310 Permit) or the Stream Protection Act (SPA 124 Permit).

Individual applications submitted to the Department of Environmental Quality are normally processed within 30 to 60 days. Authorizations waived under the 310 or SPA 124 permit processes correspond to the time frame under each permit system, usually 30 to 60 days. There is an application fee of $150.00 (make check or money order payable to Water Protection Bureau, Department of Environmental Quality).

For more information contact the Water Protection Bureau – MT Department of Environmental Quality (406) 444-3080.

Storm Water Discharge General Permits

Anyone proposing a construction **activity that will disturb one or more acres**, a defined industrial activity; a mining or oil and gas activity in which storm water will come into contact with overburden, raw material, intermediate products, finished products, or waste products located on the site of such operations (including active and inactive mine sites); or other defined activity that **has a discharge of storm water into surface waters**. Permit authorization is typically obtained under a Montana Pollutant Discharge Elimination System (MPDES) "General Permit".

For storm water discharges associated with construction activity, permit authorization is effective upon Department receipt of a complete Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and fee. This must be received no later than the construction activity start date. For other regulated storm water discharges, a complete Application Form, SWPPP (except for Small MS4s), and fee must be received for review at least 30 days prior to the discharge of storm water from the facility or activity. Fees vary depending on the type of permit. Contact the Department or visit the website listed below for various storm water discharge "General Permits," Application/NOI Forms, fee schedule, and other permitting forms/information.

For more information contact the Water Protection Bureau – MT Department of Environmental Quality, (406) 444-3080, http://www.deq.mt.gov.

ADDENDUM TO MDT APPROACH AND ENCROACHMENT/OCCUPANCY PERMIT
NOTIFICATION OF LIBBY AMPHIBOLE ASBESTOS

MDT right-of-way surface soil located within the boundaries of the Libby Asbestos National Priorities List Superfund site and in yet unidentified areas of MDT right-of-way in Lincoln Co., Montana may contain ubiquitous amounts of amphibole asbestos contamination. This contamination is sourced from the historic mining, processing, and transport of vermiculite from the former W.R. Grace Mine located north of Libby, MT. The releases of Libby amphibole asbestos (LA) to the environment have caused a range of adverse health effects in exposed people, including not only workers at the mine and processing facilities, but also residents of Lincoln County.

Testing by MDT and the U.S. Environmental Protection Agency (EPA) has confirmed the presence of LA in both asphalt aggregate and in MDT right-of way surface soil on MT 37 north of the Kootenai River Bridge to past the junction with Rainy Creek Road. Though not yet tested, LA may also be present in trees and vegetation. Testing also indicates that other transportation corridors in Lincoln Co. also contain varying amounts of LA in both surface soil and vegetation.

(Name of Permittee) is hereby put on notice that undiscovered areas of LA contamination may be present in MDT right-of-way surface soil in the permit area. Permittee should take all appropriate precautions to guard against potential exposure to LA contamination by its agents, employees, or other third parties while conducting any soil or vegetation disturbance in MDT right-of-way in the permit area. Permittee shall notify the EPA to report any planned disturbance of soil or vegetation within the permit area, at (406) 291-5335. For additional information or questions, Permittee may contact the EPA or MDT Environmental Services in Helena, MT at (406) 444-7632.

Permittee, its agents and employees, agree to protect, defend and indemnify the State of Montana, MDT, its agents, and employees, and save and hold each of them harmless from and against all claims, demands and causes of action of any kind or character, including defense costs, arising from activities conducted under this permit, from any claims or causes of action from the Permittee's agents, employees, or other third parties arising from or allegedly due to activities under this permit, and from any claims, demands and causes of action of any kind or character, including defense costs, or damages due to or allegedly caused to any third parties for personal injuries, property damage, loss of life or property, civil penalties, or criminal fines resulting from or in any way connected with activities pertaining to this permit.

This Addendum constitutes an addition to said permit. All other provisions of said permit remain unchanged.